Catalogue 2005 / 2006

Instruments and Accessories for Construction and Surveying

New Edition

- when it has to be **right**

Leica Geosystems

Improve your Performance

The new Leica DISTO™ Generation
Modern Design and most simple Usage

Leica Geosystems invented the first handheld laser meter and thus made it clearly easier to measure the distance to an object. A revolution to the world of measuring! Nowadays more than ¾ million people put their trust in Leica DISTO™ when it comes to easy, quick and reliable measurements.

Through a customer-related point of view and continuous research Leica was able to launch five generations of DISTO™ so far. The devices have been improved constantly to suit the growing needs of our customers.

For craftsmen, estate agents and architects Leica DISTO™ is the first choice - worldwide! No matter if it's building or decorating a house, calculating an offer or working on a specific measuring task, Leica DISTO™ always provides quick and reliable measurements.

Save time, increase your productivity and be one step ahead of your competition.

Learn more about the new DISTO™ on page 24.

Find further information about the new BUILDER on page 28!

A New Era

The era of purely mechanical or optical instruments is over. This is the digital era where digital instruments are needed to remain competitive. The digital Builder leads the way in this new era.

The rugged Builder stands up to the elements and takes all kinds of weather. And yet it's easily to transport in the carry case that holds most accessories in a single lightweight package.

What's new about the Builder?

Why is the Builder theodolite the best choice?

- ...because it is the only modular theodolite that can grow with your needs.
- ...because the operation is so simple.
- ...and because its performance features are second to none.

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RUNNER

Tough and Accurate

RUNNER 20/24 are two robust and value-priced automatic builder's levels. Designed to work hard on the job site. They are quick to set up, simple to use and very reliable. The automatic compensator and the fast optics speed up measurements on site and increase accuracy.
RUNNER - the ideal partner for your daily levelling tasks. Our levels are unshakeable. With a level from Leica you can just keep on working. RUNNER is the ideal construction level for site foremen, engineers, architects, landscape gardeners, carpenters, construction companies and many more.

Build to Last - Levels for Construction and Engeneering Surveys

RUNNER means superior performance at a great price

- Robust and accurate
- Air-damped compensator with control button
- Water resistant (IP55)
- Double-sided endless fine drive for easy targeting
- Pentaprism for easy viewing of circular level
- Horizontal circle with 360° division
- Value-priced

RUNNER20 Automatic Level

With 20x magnification
Standard deviation per km 2.5 mm
(double-run levelling)
Telescope: Clear objective aperture 36 mm, Shortest focusing distance 0.8 m, Multiplication factor 100, Additive constant 0
Compensator: Working range ±15',
setting accuracy (std. dev.) 0.5"
Operating temperature: -20°C to +50°C

Order No: 727 585

RUNNER24 Automatic Level

With 24x magnification
Standard deviation per km 2.0 mm
(double-run levelling)
Telescope: Clear objective aperture 36 mm, Shortest focusing distance 0.8 m, Multiplication factor 100, Additive constant 0
Compensator: Working range ±15', setting accuracy (std. dev.) 0.5". Operating temperature: -20°C to +50°C

Order No: 727 586

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CTP103 Aluminium Tripod
Medium duty aluminium tripod with carrying strap and side clamp screws. Extendible 1.68m (5.5ft).
Order No: 726 833

CLR101 Telescopic Level Staff
4m length, 4 sections, dual face E-graduation and mm-graduation
Order No: 727 587

Suggestion:

To carry out survey tasks properly, you need your own knowledge and you need the right instrument. You also need the right accessories because, like in a chain, the weakest link determines the overall performance of the system. Leica Geosystems accessories will transform your equipment into a reliable and productive tool.

Feature	RUNNER 20	RUNNER 24
Magnification	20x	24x
Standard Deviation	2.0 mm / km	2.0 mm / km
Working Temperature	-20°C bis +50°C	-20°C bis +50°C
Weight	1,8 kg	1,8 kg
Area of Use	All purpose construction level	All purpose construction level with pleasant magnification

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NA720 / NA724 / NA728 / NA730

Leica NA700 - The most robust Level. Guaranteed.

Superior performance, superior value, extreme robustness, the highest measurement precision and an extremely competitive price. All this in one package. No one else comes close.

Configure the level to suit your work and preferences. The horizontal circle can be read in either degrees or gons, the footscrews have adjustable resistance. Also, the NA700 series may be mounted on flat or dome head tripod.

NA700 means the finest optics in the world. Banish tired eyes forever and ensures you're really aiming accurately at the target, even in extreme light conditions. A minimum target distance of 50cm enables you to work in the tightest conditions.

NA720 automatic Level

Magnification: 20x
Standard deviation per km 2.5 mm (double-run levelling), Standard deviation at 30 m: 1.5 mm (single measurement)
Compensator: Working range ±12', Setting accuracy (std. dev.) <0.5"
Impact standard: ISO 9022-33-5
Ingress protection: IP57

Order No: 641 982

NA724 automatic Level

Magnification: 24x
Standard deviation per km 2.0 mm (double-run levelling), Standard deviation at 30 m: 1.2 mm (single measurement)

Order No: 641 983

NA728 automatic Level

Magnification: 28x
Standard deviation per km 1.5 mm (double-run levelling), Standard deviation at 30 m: 1.0 mm (single measurement)

Order No: 641 984

NA730 automatic Level

Magnification: 30x
Standard deviation per km 1.2 mm (double-run levelling), Standard deviation at 30 m: 0.8mm (single measurement)

Order No: 641 985

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So easy to use

The circular bubble and horizontal circle can be read directly next to the telescope. Approximate targeting is made easy using the external sight. The image is presented upright and precise targeting is quick, courtesy of the double-sided endless drives. The NA728 and NA730 have a rough/fine focus drive making your work even easier.

CLR101 Telescopic Level Staff
4m length, 4 sections, dual face
E-graduation and mm-graduation
Order No: 727 587

BST01L Aluminium Tripod
Light-duty aluminium tripod, with fast clamps. Extendible 178cm (5.8ft), weight 4.0kg (8.8lb).
Order No: 663 095

Feature	NA720	NA724	NA728	NA730
Magnification	20 x	24 x	28 x	30 x
Standard Deviation	2.5 mm/km	2.0 mm/km	1.5 mm/km	1.2mm/km
Working Temperature	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Weight	1,6 kg	1,6 kg	1,7 kg	1,7 kg

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Leica NA2 / NAK2

The classical Level from Leica Geosystems

The NA2 universal automatic level meets all requirements regarding precision, convenience and reliability. It was designed by surveyors and development engineers with years of experience that know what a field instrument has to be able to do. The NA2 soon pays for itself, because it can be used for all types of surveying job; on building sites for routine levelling, in engineering projects, and for geodetic control at all levels of accuracy. With a compensator setting accuracy (stand. dev.) of 0.3'' and a micrometer reading to 0.1 mm direct and 0.01 mm by estimation, the NA2 with GPM3 is an ideal combination for precise levelling and settlement determinations on buildings, deformation measurements and monitoring of bridges. Simply the NA2 with GPM3 can be used for all types of surveying job.

Top-class optics

The telescope is of excellent quality and gives a bright, high-contrast, erect image, even in poor light – an essential for accurate levelling. With the standard eyepiece the magnification is 32×, the optimum for most applications of the instrument. Optional eyepieces are available; the 40× may be preferred for precise levelling, the 25× in hot, shimmer conditions.

NA2 Universal Automatic Level

Magnification: 32x
Standard deviation per km 0.7 mm (double-run levelling, depending on staff and technique)
Compensator: Working range ±30', Setting accuracy (std. dev.) 0.3"

Order No: 352 036

NAK2 Universal Automatic Level (400gon)

Magnification: 32x
Standard deviation per km 0.7 mm (double-run levelling, depending on staff and technique)
Compensator: Working range ±30', Setting accuracy (stand. dev.) 0.3''. Horizontal circle (glass) 400gon, graduation interval of Hz circle 1gon, optical scale interval 0.1gon, reading by estimation 0.01gon

Order No: 352 039

NAK2 Universal Automatic Level (360°)

Same as before, but horizontal circle 360°, optical scale interval 10', reading by estimation 1'

Order No: 352 038

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Universal Application

- Levelling of all types and all orders of accuracy
- Precise levelling and settlement determinations on buildings
- Routine heighting for the construction of roads, railways, pipelines, tunnels and so forth
- Setting-out work and control measurements on the construction site
- Area levelling of high accuracy
- Tacheometric levelling with the K-version on flat terrain by combining stadia and angular measurements with height readings
- Deformation measurement and monitoring of bridges

GPM3 Parallel-Plate Micrometer
In container, measuring range 10mm.
Order No: 356 121

GOA2 Autocollimation Eyepiece
For all instruments
Order No: 199 899

GFZ3 Diagonal Eyepiece
Allows step sights
Order No: 734 514

FOK 73, 40x Eyepiece
for NA2/NAK2
Exchangeable against standard eyepiece.
Order No: 346 475

GEB60 Eyepiece Lamp with Cable
For using the level or the eyepiece of th
theodolite as a collimator
Order No: 394 785

GEB62 Plug-in Lamp, with Cable
For autocollimation eyepiece
Order No: 394 787

GEB63 Battery Box
For autocollimation eyepiece and
eyepiece lamp
Order No: 394 792

Feature	NA2	NAK2
Magnification	24 x	32 x
Standard Deviation	0.7mm (0.3mm in combination with parallel plate micrometer GPM3	0.7mm (0.3mm in combination with parallel plate micrometer GPM3)
Working Temperature	20°C bis +50°C	20°C bis +50°C
Weight	2,4 kg	2,4 kg
Area of Use	Precision automatic level for all kind of applications	Precision automatic level for all kind of applications

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Leica SPRINTER Electronic Levels

Accelerate your
Leveling Productivity in:

- Building Construction
- Road Construction
- Civil Engineering
- Topography and Cadastral Applications
- Agriculture
- Architecture
- Landscaping
- Dimensional control
- Mining and Quarrying
- Tunneling
- Anywhere else you need to level error free and fast

Added value Functions, such as

- Continuous tracking mode
- Inverse Staff measuring mode
- Onboard adjustment program
- Auto Off Power saving mode
- Alpha/numeric input function

SPRINTER 100

Standard deviation 2.0mm, electronic level, with user manual, 4 pcs AA dry cells and container

Order No: 738 932

SPRINTER 100M

same as 100, incl. RS232 interface & internal memory

Order No: 738 933

SPRINTER 200

1.5mm, electronic level, with user manual, 4 pcs AA dry cells and container

Order No: 741 867

SPRINTER 200M

same as 200, incl. RS232 interface & internal memory

Order No: 741 868

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Become one of the World's fastest Levelers...

Leica SPRINTER is a reliable and accurate electronic level that provides error-free measurements. Just let the electronic eye do it! There will be no more misreading and interpretation errors in reading the staff.

Leica SPRINTER is as easy to use as a conventional level with the incredible functionality of an electronic level. You don't even need a manual to get it started.

Compared to a conventional level, Leica SPRINTER's effortless, fast measurements could save up to 50 % of your valuable time. The electronic level enhances your productivity. And all this for an incredible price.

With Leica SPRINTER 100M/200M, data can be stored and transferred to an external data collector or your personal computer.

Leica SPRINTER is designed for users with all skill levels. The in -built tilt sensor prevents the system from measuring if the user operates outside the compensator range.

The Leica SPRINTER is completely at home on rough construction sites. You can leave it in the sun or rain. You can work under dim lights and even in the dark with a simple torch or flash light.

GKL 25 Charger
for 4xAA(R6) rech. batteries, European version. + 4 AA(R6) SANYO 1.2V/2300mAh NiMH rech. batteries
Order No: 741 905

GSS 111 Dual face telescopic levelling staff

5m, 4 sections, SPRINTER bar code/E-Scale cm-graduation, with circular bubble, in transport bag (Std. version)

Order No: 741 882

GSS 111-1, barcode / ft-graduation (Imperial version)

Order No: 741 883

GSS 111-2, barcode / 5mm-graduation (Japan version)

Order No: 741 885

GSS 112-3, barcode / E-Scale cm-graduation (UK version)

4m 4 section staff

Order No: 741 884

GSS 112-5, barcode / 2mm-graduation (Spain version)

Order No: 741 886

BST01L Aluminium Tripod
Light-duty aluminium tripod, with fast clamps. Extendible 178cm (5.8ft), weight 4.0kg (8.8lb).
Order No: 663 095

Feature	100	100M	200	200M
Magnification	24 x	24 x	24 x	24 x
Accuracy Electr. Measurements	2.0 mm	2.0 mm	1.5 mm	1.5 mm
Data Storage	-	yes	-	yes
Weight	<2,5 kg	<2,5 kg	<2,5 kg	<2,5 kg
Area of Use	Robust, economic digital level for users of all skill levels	Robust, economic digital level for users of all skill levels with data storage	Robust, economic digital level for users of all skill levels with higher precision	Robust, economic digital level for users of all skill levels with higher precision and data storage

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DNA03 / DNA10

Save up to 50% in Time

Experience shows that with Leica digital levels there is up to a 50% time saving when compared with conventional levels. The main reasons are the fast data capture preparation and safe means of data preparation, thanks to saving measured data on storage devices.

Measuring without Mistakes or Fatigue

Leica digital levels measure and save the height and the distance to the staff at the press of a button, and calculate the height of the point. Advantage: no readings required, no copying or writing down and no hand calculations.

DNA10 Digital Level
Magnetically-damped compensator, with user manual and container. Electronic measurements with invar staffs 0.9mm, with standard staffs 1.5mm. Optical measurements: 2.0mm
Order No: 726 540

DNA03 Precision Digital Level
Magnetically-damped compensator, with user manual and container. Electronic measurements with invar staffs 0.3mm, with standard staffs 1.0mm. Optical measurements: 2.0mm
Order No: 723 289

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Leica DNA levels at a Glance

- Telescope magnification 24x
- Area of use: Quick measurements of heights, height differences and stake outs, I. and II. order levelling, Precision measurements (DNA03)
- Cadastral levelling, Technical levelling (DNA10)
- Range: Electronic measurement 1.8m -- 110m, Optical measurement from 0.6m
- Time for single measurement: typically 3 seconds
- Measurement modes: single, average, median, repeated single measurements
- Measurement programs: Measure & Record, staff height/distance, BF, aBF, BFFB, aBFFB, Line adjustment
- Coding: Remark, Free code, Quick code

Data storage:

- Internal memory : 6000 measurements or 1650 station
- Backup: PCMCIA card (ATA-Flash/SRAM) SRAM compatible with Omnidrive MCR4
- Online operations: GSI format via RS232
- Data exchange from internal memory to PC; GSI8/GSI16/XML/flexible user definable

GEV102 Data Transfer Cable
Lemo 0/RS232 (9-pin, female, 2m) for connecting PC, laptop etc.
Order No: 563 625

GKL112 Basic Series Charger, NiMH
Budget priced charger for single GEB111/121 battery. Car adapter cable is included.
Order No: 734 753

MCF16MB-3 PCMCIA-ATA Flash Card, 16MB

Order No: 667 746

GEB111NiMH Plug-in Battery 6V/2.1Ah
Rechargeable camcorder type battery (for T100, TPS100/300/400/700/800, RCS1100, DNA03/10).
Order No: 667 318

GST05 Telescopic Wooden Tripod
Medium-duty tripod, with shoulder strap & polymer coating. Extendible 176cm (5.7ft), weight 5.6kg (12.3lb).
Order No: 399 244

GKNL4M Dual Face Level Staff
4m, 3 piece sect. fiberglass-reinforced polymer staff with code/cm-graduation, handles&circular bubble, in transport bag
Order No: 522 794

Feature	DNA10	DNA03
Magnification	24 x	24 x
Accuracy electr. Measurements	0.9mm with invar staff, 1.5mm with standard staffs	0.3mm with invar staff, 1.0mm with standard staffs
Data Storage	6000 measurements or 1650 stations	6000 measurements or 1650 stations
Weight	2,8 kg	2,8 kg
Area of Use	Quick measurements of height differencies and stake outs - Cadastral an technical levelling	Quick measurements of height differencies and stake outs I. and II. order levelling and precision measurements

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Leica Levels: Benefit from Experience ...

Superior Quality, superior Performance, superior Value

Extreme robustness, the highest measurement precision and an extremely competitive price. All this is making the difference! And more, Leica levels are so easy to use. No need to spend time in training. We love to make your work even easier.

Our ergonomic optics are probably the finest optics in the world. Banish tired eyes forever and ensure you're really aiming accurately at the target, even in extreme light conditions. Leica levels can be configured to suit your work and preferences. Some levels can be read in either degrees or gons.

Just in case – all Leica levels are shock resistant. So the systems can be used again straight away, even after a fall. No need to check or readjust the instrument in the workshop or send it for service. That's what we call jobsite tough. According to ISO9022-33-05 standard. Being approved up to IP57 (total immersion) of the IEC60529 standard, water, dust and dirt have no effect on Leica levels. High quality workmanship matched with an intelligent design.

In this world building sites are no places for compromise. That's why every Leica level uses high quality renowned optics. Your benefit: longer periods of use with reduced chances of error. At no extra cost.

Autom. Levels	RUNNER20	RUNNER24	NA720	NA724	NA728	NA730	NA2/NAK2
Magnification	20 x	24 x	20 x	24 x	28 x	30 x	32 x
Gas filled Telescope	-	-	yes	yes	yes	yes	yes
Angle Measurement	360°	360°	360°/400°	360°/400°	360°/400°	360°/400°	360°/400°
Standard deviation/km	2.5mm	2.0mm	2.5mm	2.0mm	1.5mm	1.2mm	0.7mm
Dust / Water	IP55	IP55	IP57	IP57	IP57	IP57	IP53
Working Temperature	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Dimensions	20x14x14 cm	20x14x14 cm	19x12x12 cm	19x12x12 cm	21x12x12 cm	21x12x12 cm	25x25x12 cm
Weight	1,8 kg	1,8 kg	1,6 kg	1,6 kg	1,7 kg	1,7 kg	2,4 kg
Area of Use	All purpose construction level	All purpose construction level with pleasant magnification	All purpose automatic level for versalite applications	All purpose autom. level with pleasant magnification for vers. appl.	All purpose autom. level for jobs with medium accuracy requ.	All purpose autom. level for jobs with high accuracy requ.	Precision automatic level for all kind of applications

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... and Increase your Productivity

Fast, comfortable, error-free

Experience shows that with Leica digital levels there is up to at least 50% time saving when compared to conventional levels. The main reasons are the faster data capture preparation as well as the shorter time and safer means of data preparation, thanks to saving measured data on storage devices.

With Leica digital levels all operations are made easier: the new generation of digital levels is designed for users with all skill levels. Our digital levels even include many error reducing functions.

Some levels include built-in tilt sensors preventing the system from measuring if the user operates outside the compensator range. Because we like you to always measure error -free!

Clear and bright displays are giving you all detailed information at once. Just by pressing a single button.

Easy to use software tools control e.g. data exchange and configuration of the instrument if needed. Additional software is offering even more functions and user defined reports.

Digital Levels	DNA10	DNA03	SPRINTER100	100M	SPRINTER200	200M
Magnification	24 x	24 x	24 x	24 x	24 x	24 x
Angle Measurement	400°	400°	360°	360°	360°	360°
Standard deviation per km	0.9mm with invar staff, 1.5mm with standard staffs	0.3mm with invar staff 1.0mm with standard staffs	2.0 mm with Leica SPRINTER aluminium staff	2.0 mm with Leica SPRINTER aluminium staff	1.5 mm with Leica SPRINTER aluminium staff	1.5 mm with Leica SPRINTER aluminium staff
Dust / Water	IP53	IP53	IP55	IP55	IP55	IP55
Working Temperature	-20°C to +50°C	-20°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C
Dimensions	-	-	22x20x18 cm	22x20x18 cm	22x20x18 cm	22x20x18 cm
Weight	2,8 kg	2,8 kg	< 2,5 kg	< 2,5 kg	< 2,5 kg	< 2,5 kg
Area of Use	Quick measurements of height, heigth differencies and stake outs - Cadastral and technical levelling	Quick measurements of height(-differencies) & stake outs -I. & II. order levelling & precision measurements	Robust, economic digital level for users of all skill levels. SPRINTER M models contain data storage option.			

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RUGBY 100 / 100LR / 200

A new, rugged Family of Construction Lasers

You already know the value of lasers on the job site. They make faster work of any layout job while eliminating costly errors and downtime. Once they were a "nice to have", now they are a competitive "must have" to get the job done right and get off the site as fast as possible. One look at these automatic, self-leveling, horizontal leveling tools and you know it.

RUGBY 100 General Construction Laser
Construction-tough, Reliable, Accurate and Easy to use Automatic Self-levelling Laser for General Construction. Including: RUGBY 100 Horizontal Laser, Alkaline Battery Set, Rod Eye Pro Laser Sensor with Clamp and Carrying Case.
Order No: 731 558

RUGBY 100 LR General Construction and Machine Automation Laser
Construction-tough, Reliable, Accurate and Easy to use Automatic Self-levelling Laser for General Construction and Machine Automation. Including: RUGBY 100 Long Range Horizontal Laser, Alkaline Battery Set, Rod Eye Pro Laser Sensor with Clamp and Carrying Case.
Order No: 733 621

RUGBY 200 General and Interior Construction Laser
Construction-tough, Reliable, Accurate and Easy to use Automatic Self-leveling Laser for General and Interior Construction. Including: RUGBY 200 Horizontal and Vertical Laser (visible beam), Laydown Foot Attachment, Alkaline Battery Set with Holder and Standard Carrying Case.
Order No: 734 159

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Why RUGBY is the toughest Player on the Field

All RUGBY construction lasers are high technology, high precision tools. Compare these features and you'll see why RUGBY sets the standard for durability and value.

- Water resistant: all critical components completely protected from wet all weather conditions
- Housing made from co-molded rubber and high-impact plastic
- Aluminum base withstands rough handling and is highly resistant to abrasion and fracture
- Construction-tough components have all undergone rigorous testing to assure long life under harsh conditions
- Enclosed head means no worries about contamination of critical interior parts
- Rugged, high-impact strength polymer carrying case

NiMH Battery Pack for RUGBY 100/200 Series
Order No: 726 746

NiMH-Charger for RUGBY 100/200 Series
the appropriate power cable is included
Order No: 727 165

Wallmount/Laydown Bracket RUGBY 200
Order No: 733 077

Magnetic Ceiling Grid Target RUGBY 200
Order No: 725 840

Infrared Remote Control RUGBY 200
Order No: 731 645

Feature	Rugby 100	Rugby 100LR	Rugby 200
Self levelling	H	H	H+V
Laserbeam	Red	Infrared	Red
Operating Range	150m	300m	150m
Grade Capability	manual	manual	manual
Area of Use	General Construction	General Construction & Machine Automation	General & Interior Construction

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Leica RUGBY 300 SG & 400 DG

RUGBY 400DG
with Carrying Case, NiMH Battery Pack, Charger and Rod Eye Classic with Clamp
Order No: 741 752

Rugby 300 SG (Single Grade)
Rugby 400 DG (Dual Grade)

Making the grade is what the Rugby is all about. Whether your work requires level, single or dual grades, the Rugby's extensive features will ensure both material and labor savings, keeping you on target to increase your bottom line. The Rugby Grade Lasers are automatic and self-leveling for jobs of any size, large or small. They can be used for any application involving precise grade control such as:

- Building pads, parking lots and runways
- Precise depth control for sub base and fine grade excavation
- Installing septic and gravity flow pipe for drainage
- Agricultural applications such as land leveling or tiling
- Concrete forming and framework
- Retention ponds and batters
- Setting foundations and footings
- Machine control with the MC200 Depthmaster for excavators, MC1200 for motor graders, and control systems based on Leica CAB laser sensors for dozers, scrapers, box blades, and similar equipment

RUGBY 300SG
with Carrying Case, NiMH Battery Pack, Charger and Rod Eye Classic with Clamp
Order No: 741 751

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Specifications

Operating Range: 2500 ft (750 m) diameter
Self-leveling Accuracy: ±1/16" per 100 ft (1.6 mm per 30 m) at 25°C
Self-leveling Range: ±5°
Grade Capability: Rugby 300 SG -5 to +25% in one axis Rugby 400 DG-5 to +25% in either axis; (-5 to +15% in both axis)
Rotating Speeds: 5, 10, 15, 20 RPS
Laser Diode: Infrared (IR) 780 nm invisible
Dimensions: 10.4 x 10.2 x 7.9" (265 x 260 x 200 mm)
Weight: 11.1 lbs (5 kg) without batteries
Operating Temperature: -4°to 122°F (-20°to 50°C)
Battery Type: Alkaline or NiMH
Battery Life: up to 130 hours with alkaline; up to 100 hours with rechargeable (Battery life is dependent upon environmental conditions)
Watertight to IPX-7 standard
Warranty 12-month (Leica Geosystems International Limited Warranty)

Remote Control for Rugby 400DG
Order No: 739 854

Telescope and Bracket
for Rugby 300SG and 400DG
Order No: 739 870

CAD101 Prism Adapter
With Leica stub for prism pole CPP101.
Order No: 726 835

GPR111 Basic Series Circular Prism
The GPR111 Basic Series Prism is precisely moulded into a fibre-reinforced polymer housing and target plate. This provides a secure and robust support for the prism.
Order No: 641 618

CPP101 Prism Pole 2.15m
Without prism adapter, with moss rubber grip, reliable lock with side clamp screw. With cm and ft graduation.
Order No: 726 834

LAT 195 Crankable Laser Tripod, 195cm
Order No: 663 099

Feature	Rugby 300SG	Rugby 400DG
Self leveling	H + Grade	H + Grade
Laserbeam	Infrared	Infrared
Operating Range	375m	375m
Grade Capability	-5% to +25% single-grade	-5% to +25% single-grade -5% to +15% dual-grade
Area of Use	General Construction & Machine Automation	General Construction & Machine Automation

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6790 / 6775 / 6770 Pipe Lasers

Beam Aligner 6770

Construction-tough, Reliable, Accurate and Easy to use "Red Beam" Sewer Laser.
Including: Beam Aligner 6770 with the "Alignmaster™" - Automatic Targeting System, Rechargeable NiMH Battery Pack, Charger, Remote Control, Target Assy. 150-300 mm and Carrying case.

Order No: 725 981

Beam Aligner 6775

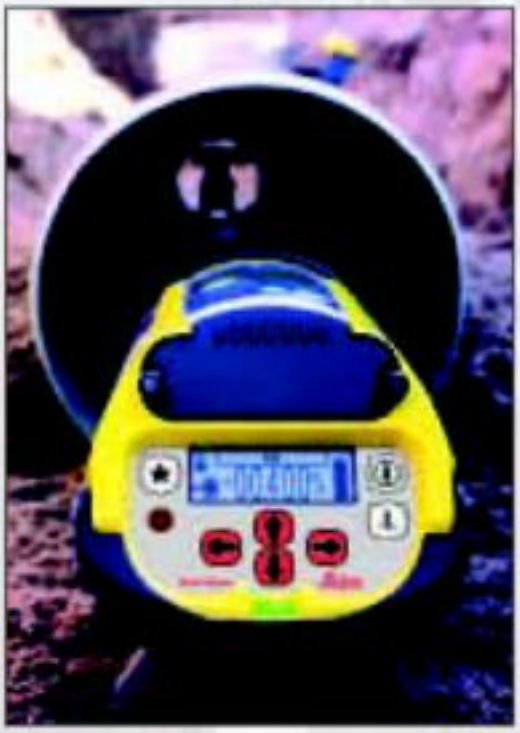
Construction-tough, Reliable, Accurate and Easy to use "Red Beam" Sewer Laser.
Including: Beam Aligner 6775, NiMH Rechargeable Battery Pack, Charger, Remote Control, Target Assy. 150-300 mm and Carrying Case.

Order No: 725 982

Beam Aligner 6790

Construction-tough, Reliable, Accurate and Easy to use "Green Beam" Sewer Laser.
Including: Beam Aligner 6790 with the "Alignmaster™" - Automatic Targeting System, Rechargeable NiMH Battery Pack, Charger, Remote Control, Target Assy. 150-300 mm and Carrying Case.

Order No: 725 984



Target Assy. 150-300 mm Insert
Target Assy. with 150-300 mm "Blue" Insert for "Green Beam" Sewerage Laser
Order No: 725 887

Target Assy. 150-300 mm Insert
Target Assy. with 150-300 mm Insert for "Red Beam" Sewerage Laser
Order No: 725 858

IR Remote Control Beam Aligner Series
Order No: 725 855

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Construction Lasers Accessories

Increase Productivity

The ROD-EYE family of sensors offers solutions for any general construction and interior application, and are ideally matched to work with the RUGBY and JAVELIN family of lasers. They are construction-tough, designed to work in harsh, loud environments, and provide precise and repeatable accuracy.

ROD-EYE Pro is the top of the line sensor and features liquid crystal displays (LCD) on both the front and rear allow for easy visual indication of the reference plane, selectable audio volume with three distinct tones for high (fast), low (slow) and on-grade (continuous) positions. The ROD-EYE Pro features extremely accurate sensing bands, and even has industrial deadband settings for special applications. The Pro's 36 month warranty is the industrys best!

ROD-EYE Classic is a mid-range sensor with many of the same, great features as the Pro. 24 month warranty. ROD-EYE Mini is an economical solution that features an LCD indication on the front panel, and has a working diameter of 1000 ft (300 m).

Rod-Eye Pro Sensor with Clamp
Construction-tough, Reliable and Accurate Laser Sensor and Universal Clamp with a reversible jaw for oval rods
Order No: 356121

Rod-Eye Mini Sensor with Clamp
Construction-tough and Reliable Laser Sensor with Rod Clamp
Order No: 730 463

Rod Eye Classic and bracket
Construction-tough, Reliable and economic
Order No: 739 575

Lasers at a glance	Rugby 100	Rugby 100 LR	Rugby 200	Rugby 300SG	Rugby 400DG	Beam Aligner 6770	Beam Aligner 6775	Beam Aligner 6790
Applications	General Construction	General Construction & Machine Automation	General & Interior Construction	General Construction & Machine Automation	General Construction & Machine Automation	Sewerage	Sewerage	Sewerage
Self leveling	H	H	H+V	H + Grade	H + Grade	Grade	Grade	Grade
Grade Capability	manual	manual	manual	-5% to +25%, single -grade	-5% to +25%, single -grade - 5% to +15%, dual-grade	-15% to +50%	-15% to +50%	-15% to +50%
Manual option	yes	yes	yes	yes	yes	-	-	-
Laserbeam	Red	Infrared	Red	Infrared	Infrared	Red	Red	Green
Target search/ Self Alignment	-	-	-	-	-	yes	-	yes
Operating Range (Radius)	150 m	300 m	150 m	375 m	375 m	200m	200m	200m
Plumb beam	-	-	yes	-	-	-	-	-
Waterproof	IPX-6	IPX-6	IPX-6	IPX-7	IPX-7	IPX-7	IPX-7	IPX-7
Scan function	-	-	yes	-	-	-	-	-
Remote Control	-	-	yes	-	yes	yes	yes	yes
Rechargeable battery	yes	yes	yes	yes	yes	yes	yes	yes

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The DIGISYSTEM

Your Key to safer Digging

Every year, site workers are injured due to inadvertently striking buried electricity cables or gas pipelines. With the DIGISYSTEM operators can locate, trace and mark underground services precisely and reliably prior to excavation. Harm to people and underground services can result in pain, suffering, and high costs apart from the personal issues. If you are not fully aware of your local legislation, and are not using a location system to day, look what it could cost you:

- Repair of damaged underground service (cables, pipes, valves, connectors, ducting, ...)
- Cost for disruption of damaged services (electricity, telecom services, water, gas, ...)
- Insurance claims for serious or fatal injuries

DIGICAT™ 100, Digital Locator
DIGICAT™ 100, digital location of underground services via four modes - power detection / radio detection / dual frequency generated signal detection - includes batteries and user manual.
Order No: 731 047

DIGICAT™ 200, Digital Locator with depth
DIGICAT™ 200, as DIGICAT™ 100 Provides depth estimation of the utility being traced with the DIGITEX 8/33 Signal Generator (33 KHz mode) or DIGIMOUSE (Sonde).

Includes batteries and user manual.
Order No: 731 048

Locate underground service pipes safely, reliably and with minimum effort. The new DIGICAT™ 200 even indicates you the depth of the pipes in just a single measuring operation.

Provides depth estimation of the utility being traced with the DIGITEX 8/33 Signal Generator (33 KHz mode) or DIGIMOUSE (Sonde).

Depth to 3.0m , accuracy typically within +/- 10% of depth.

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Find it or avoid it The Leica DIGISYSTEM is your Key

The DIGICAT™ digital locator family have been designed to meet the stringent and ever more complex requirements of today's tracing operations. Several vital safety features built into the DIGICAT™ 100 and 200 models are rarely found in similarly priced units from other manufacturers.

- Digital signal processing – robust and error free location in the construction environment
- Easy to use – requires only minimal training
- Robust, lightweight and waterproof – designed for tough working conditions
- Always starts in power mode at maximum sensitivity – ensures safest operating conditions
- 8 and 33 kHz tracing modes, depth estimation to 3m, accuracy typically better than ±10% (DIGICAT™ 200) – maximum flexibility
- Highly visible digital LED display – swift service location

For more information just contact your local dealer or order your personal DIGISYSTEM-CD at www.cabledetection.com.

DIGITEX 8/33 Signal Generator
Digital generator/ transmitter/inducer to be detected by DIGICAT™ - incl. batteries, earth spike, connection cable set, user manual.
Order No: 731 049

DIGITRACE 30 non-metal. service tracer
Conductor of generated signal along a 30m flexible rod system through undergr. services to be detected by DIGICAT™ range.
Order No: 731 050

Medium Signal Clamp
Provides a connection from the DIGITEX 8/33 to metallic pipes, cables, etc. (max 100mm outside diameter).
Order No: 731 056

DIGIMOUSE 40mm dia. (sonde)
DIGIMOUSE - specific point radiator of generated signal - pushed via flexible rod system through underground services to be detected by DIGICAT™ range.
Order No: 731 053

Property Connection Cable Set EU
Property Connection Cable Set to connect signal from DIGITEX 8/33 into the property power cables, European-Version
Order No: 731 668

DIGISYSTEM Carry Bag
Carries the two main instruments of the System (DIGICAT™ 100 and DIGITEX 8/33) plus many small accessories. Heavy-duty polyester, reinforced zipper and base
Order No: 740 307

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MC200 DEPTHMASTER

Increase Accuracy and Productivity

Working with any rotating laser the MC200 Depthmaster, controls the proper grade on construction machines. Constant Accuracy Band (C.A.B,) technology used in the MC200 Depthmaster receives the laser signal and electronically maintains consistent accuracy over distance.

MC200 Depthmaster Excavator Sensor with Clamp-on Brackets

Together with a rotating laser the excavator sensor MC200 Depthmaster provides accurate elevation control and a unique, patented, built-in vertical plumb indicator for consistent accuracy.

Order No: 742 438

MC200 Depthmaster Excavator Sensor with Magnetic Bracket

Same as No. 742438 but with Magnetic Bracket.

Order No: 742 440

Main Features at a Glance

- CONSTANT ACCURACY BAND (CAB) Maintains 'on-grade' accuracy regardless of operating distances spot size, or rotating laser type. The 'on-grade' band width is selectable and will consistently read either + 1/6" (4mm) or + 1/2" (12mm) depending on jobsite requirements.
- MIRROR IMAGE MOUNTING Front and back sides of the MC200 DEPTHMASTER are the same for mounting on the right or left side of the machine.
- MEMORY When the MC200 DEPTHMASTER is out of the range of the lasers an LED will blink indicating which way to move the sensor to find the laser light.
- SHAKE TO WAKE The unique battery 'SHAKE TO WAKE' system turns off non-essential electronics after 5 minutes of non-use. It automatically turns back on when your machine begins to move again. If the MC200 DEPTHMASTER is not used for 1-1/2 hours, it shuts itself off completely.
- POLE MOUNT When used with the optional clamp-on assemblies, The MC200 DEPTHMASTER can be mounted on a round or square pole for dozer or other applications.
- MAGNETIC MOUNT The MC200 DEPTHMASTER is extremely convenient with its powerful magnetic mount. When purchased with this mount, it takes less than a minute to attach to the machine. No drilling or welding is required.
- CORDLESS ON BOARD BATTERY PACK Over 48 hours of continuous operation with the Ni-cad rechargeable battery pack.

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MC200 DIGGER

MC200 DIGGER - provides real-time dig depth and reach information on an easy-to-read graphical display mounted in the cab. MC200 DIGGER - can increase the productivity of your machine up to 30-50%. The operator has only to set the operating mode and follow the accurate information displayed on the MC200 - no more stopping work to check levels. MC200 DIGGER - graphical display indicates the exact bucket position in real-time, even underwater! MC200 DIGGER - can operate with a laser for grade reference or in stand-alone mode. All neccessary information for the operater will be shown. The function keys are easy to read and understandable. A LED light-bar gives the operator a quick reference to the achieved level. An audible tone also gives the operator an “on-grade” or “near-grade”- indication.

MC200 DIGGER Lite Package

Complete Digger Package includes Operator Display MC200, 6.4", Machine Chassis angle sensor ID63, Boom 1 angle sensor ID64, Bucket angle sensor with cable ID67, Junctionbox MC200, Straight Cable for angle sensor, Cable last angle sensor-Junctionbox, Cable for power Supply, Bracket for angle sensor / Laser Catcher, Case for Operator Display MC200

Order No: 742 474

MC200 DIGGER Pro Package

Complete Digger Package includes Operator Display MC200, 6.4", Machine Chassis angle sensor ID63, Boom 1 angle sensor ID64, Boom 2 angle sensor ID65, Bucket angle sensor with cable ID67, Laser Catcher, Junctionbox MC200, Straight Cable for angle sensor, Straight cable for Laser Catcher, Cable last angle sensor-Junctionbox, Cable for power Supply, Bracket for angle sensor / Laser Catcher, Bracket for Bucket sensor, Case for Operator Display MC200

Order No: 741 577

Features

- Unique “Learn & Dig”Profile mode
- Robust, futureproof CANBus technology
- 500g shock-resistant sensors - can even be used with a rockbreaker attachment
- Real-time digging depth reading and target indication
- Dial-in or “Learn & Dig” any slope or gradient
- Alarm setting for maximum height or depth
- Laser catcher keeps depth to an absolute reference
- Real-time bucket rotation display
- Up to 9 different bucket and attachment sizes supported
- Accurate to centimeters!
- Metric and Imperial units

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Leica DISTO™ Laser Distancemeter
The new Generation

Leica DISTO™ A3

Revolutionary size combined with ease of use.
Accuracy: ± 3 mm, Range: 0.05 - 100 m
Functions: distance/area/volume, addition /substraction, min/max and continuous measuring
Recall last values: 19
Included in delivery: User manual, hand loop, bag, batteries, security advices and certificate.

Order No: 740 687

Leica DISTO™ A5

Cutting-edge functionality - ergonomic design.
Accuracy: ± 2 mm, Range: 0.05 - 200 m
Functions: distance/area/volume, addition /substraction, min/max and continuous measuring, indirect height, room calculations
Recall last values: 20
Stores constants: 1
Included in delivery: User manual, hand loop, bag, batteries, security advices and certifcate.

Order No: 740 689

Take it easy -
Take a Leica DISTO™

Whatever your occupation is, be it surveying technician, construction engineer, architect, floorer or painter, Leica DISTO™ is the innovative handheld lasermeter that provides you with accurate and reliable measurements of distances, areas and volumes in seconds. It enables you to measure indoor and outdoor distances from 0.05 up to 200 m with an accuracy of up to ± 1.5 mm and offers comprehensive functions as tracking or Pythagorean remote measurement. The DISTO™ plus includes as special highlight wireless data transfer by means of BLUETOOTH®. The Leica DISTO™ laser distancemeter is available in three varying models with different functions to suit a broad range of measuring demands.

For more information visit www.disto.com

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Revolutionary size and cutting-edge functionality combined with ease of use and superior measuring performance - these are the key achievements of the new generation.

Integrated telescopic viewer: Two-fold magnification facilitates finding the laser dot over long distances.
Multifunctional end piece: Measure diagonals easily from corners.
Indirect height measurement: The heights or lengths of facades can be remotely measured using the Pythagorean function.

Target Plate GZM26, large
Size: 210 x 297 mm (A4)
White side for short and brown side for long distance measurements
Order No: 723 385

Stick-On Target Plate GZM27
Target plate held in place with kneading adhesive.
Size: 73 x 98 mm / 147 x 98 mm
Order No: 723 774

Laser Glasses
Red lens glasses for improved visibility of the laser dot in bright rooms and outdoor, not for laser protection
Order No: 723 777

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Leica DISTO™ plus

DISTO™ plus Laser Distancemeter
Our top model with the PLUS.

The Leica DISTO™ plus is the only device in the world that offers highest accuracy, attractive design and wireless data transfer by means of BLUETOOTH® in one package.
Accuracy: ± 1,5 mm
Range: 0,2 - 200 m*
Functions: 8
Measured data storage: 15
Constants storage: 10
Dimensions: 172 x 73 x 45 mm
Weight: 350 g
Included in delivery:
Mini CD with Software "PlusDraw" and "PlusXL", user manual, hand loop, textile holster, batteries.
* For long distance outdoor measurements use target plate.
Order No: 736 874

Leica DISTO™ plus - opens up new Dimensions

Your measured data can be transferred on site wireless to a PDA (Pocket PC) or directly to a laptop and easily used for other purposes. The two free software programs help to ease your workload. PlusDraw allows you to create simple sketches with the measured value on the pocket PC. PlusXL enables you to record the measured values immediately into an Excel table and to edit them on the PC.

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Softbag
Large carrying case for secure storage and transportation of Leica DISTO™s handlasermeter and accessories. The case is supplied without content.
Order No: 667 169

Arm Holder Pocket PC
For comfortable and long wear of a Pocket PC designed universal arm-holster.
Order No: 739 200

Technical Data	Leica DISTO™ A3	Leica DISTO™ A5	Leica DISTO™ plus
Measuring accuracy typ.	± 3 mm	± 2 mm	± 1.5 mm
Range	0.05 up to 100 m	0.05 up to 200 m	0.2 up to 200 m
Units of measure	0.000 m, 0.00 m, 0.00 ft, 0.00 1/16 ft in, 0'00" 1/16, 0.0 in, 0 1/16 in	0.000 m, 0.00 m, 0 mm, 0.00 ft, 0.00 1/32 ft in, 0'00" 1/32, 0.0 in, 0 1/32 in	0.000 m, 0.00 m, 0.00 ft, 0.00 1/16 ft in, 1/16, 1/16 in
Area, volume measurement	yes	yes	yes
Room calculations	-	yes	-
Min./max. and continuous measuring	yes	yes	yes
Indirect height	-	yes	yes
Addition / subtraction	yes	yes	yes
Multiplication	-	-	yes
Recall last values	19	20	15
Interface	-	-	BLUETOOTH® - Technology
Stores constants	-	1	10
Multifunctional end piece	-	yes	yes
Built-in telescopic viewer	-	yes	yes
Measurements	up to 5.000	up to 10.000	up to 10.000 (reduced when operated with BLUETOOTH®)
Dimensions	135x45x31 mm	148x64x36 mm	172x73x45 mm
Weight incl. batteries	145 g	241 g	350 g

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Leica BUILDER

BUILDER T100

Theodolite 9"
Telescope: magnification 30x, field of view 2.40 m at 100 m, Minimal target distance 1.70 m, illuminated reticle
Display: Angle display up to 1' (1mgon), screen/keypad 160x280 pixels or alpha numeric, 8x31 characters, both sides optionally
"Ready-to-Go" package including laser plummet, 1 keyboard, user manual, tribrach, battery adapter including 6 AA batteries and container

Order No: 747 827

BUILDER T200

Theodolite 6" (directional deviation 3 mm at 105 m)

Order No: 747 828

BUILDER R100

Theodolite with EDM, laser plummet, 1 keyboard, user manual, tribrach, battery adapter including 6 AA batteries, flat prism, reflector pole and container

Order No: 747 829

BUILDER R200

Like BUILDER R100, but long range

Order No: 747 830

BUILDER R100M

Theodolite with EDM, internal memory, serial RS232 interface, laser plummet, 1 keyboard, user manual, tribrach, battery adapter including 6 AA batteries, flat prism, reflector pole, Lemo to USB transfer cable and container

Order No: 747 831

BUILDER R200M

Like BUILDER R100M, but long range

Order No: 747 832

A new Era

The era of purely mechanical or optical instruments is over. This is the digital era where digital instruments are needed to remain competitive. The digital Builder leads the way in this new era.

What's new?

There are many theodolites, but the new Builder is different because ...

- ... the new Builder is the only one built of modules, allowing to grow according to the users needs
- ... you don't need to learn the handling over and over again - it's just so easy to use
- ... the features are better than anything else to compare with

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Specifications of the Builder T100/T200

- Angle Measurements Standard deviation: ISO 17123-3 T100 9" (directional deviation 3 mm at 70 m) T200 6" (directional deviation 3 mm at 105 m) Compensator: 2-axis electronic Operating range +/-4'
- Telescope Magnification: 30x Field of view: 2.40 m at 100 m Minimal target distance: 1.70 m
- Display Angle display up to 1" (1mgon) Screen/keypad 160 x 280 pixels or alpha numeric

Additional Data of the Builder R100/R200

- Distance Measurements Standard deviation: ISO 17123-4, 3 mm + 2 ppm Range: 80 m on Kodak Gray Card 250 m on Leica flat prism Time for a measure: 2 s typical on flat prism
- Telescope with EDM: Field of view 2.7 m at 100 m

Additional Data of the Builder R100M/R200M

- Communication Internal memory: 10.000 Data blocks Interface: RS232/USB up to 19.200 Baud

General Data for all Builders

- Weight (incl. battery and tripod): 4,3 kg (Builder T) to 5 kg (Builder R/RM)
- Power Pack: Types of batteries NiMH Camcorder types or 6 AA-batteries
- Laser Plummet: Precision 1.5 mm at 1.5 m
- Environmental Conditions Temperature: -20 to +50° C (operation), -40 to +70° C (storage) Humidity: max. 95 %, non-condensed Dust and rain: IP54 (IEC 60529)

GEB111NiMH Plug-in Battery 6V/2.1Ah
Rechargeable camcorder type battery (for T100, TPS100/300/400/700/800, RCS1100, DNA03/10).
Order No: 667 318

GKL112 Basic Series Charger, NiMH
Budget priced charger for single GEB111/121 battery. Car adapter cable is included.
Order No: 734 753

Your Builder is Ready to go

No matter which Builder you choose, you'll always get a complete set you can start your job with.

Features	T100	T200	R100	R200	R100M	R200M
Standard Deviation	9" (directional deviation 3 mm at 70 m)	6" (directional deviation 3 mm at 105 m)	9" (directional deviation 3 mm at 70 m)	6" (directional deviation 3 mm at 105 m)	9" (directional deviation 3 mm at 70 m)	6" (directional deviation 3 mm at 105 m)
Accuracy	-	-	3 mm + 2 ppm	3 mm + 2 ppm	3 mm + 2 ppm	3 mm + 2 ppm
Range	-	-	250 m on Leica flat prism	250 m on Leica flat prism	250 m on Leica flat prism	250 m on Leica flat prism
Memory	-	-	-	-	10'000 Data blocks	10'000 Data blocks
Laser Plummet	Precision: 1.5 mm at 1.5 m	Precision: 1.5 mm at 1.5 m	Precision: 1.5 mm at 1.5 m	Precision: 1.5 mm at 1.5 m	Precision: 1.5 mm at 1.5 m	Precision: 1.5 mm at 1.5 m
Area of Use	Construction theodolite at an economical price	Construction theodolite at an economical price with higher precision	Construction total station for standard measurements	Construction total station for standard measurements with higher precision	Construction total station for standard measurements with data storage	Construction total station for standard measurements with higher precision and data storage

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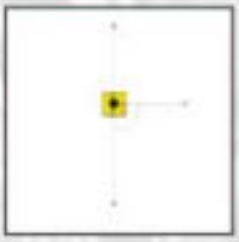
Leica BUILDER

Built for Builders

The rugged Builder stands up to the elements and takes all kinds of weather. And yet it's easily to transport in the carry case that holds most accessories in a single lightweight package.

Accelerates Building

Traditional layouts require many steps and manipulations. The Builder reduces these steps. The Builder R gives an added advantage with fewer set-ups and laser-aided layouts.

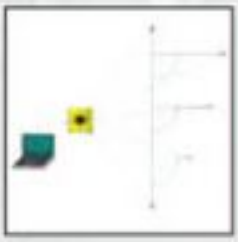


Occasional Usage

The Builder T100 or T200 can determine fill and drag points, define right angles and slopes.

Regular Usage

The Builder R determines a target with electronic laser distance measurement. In combination with the angle measurement, it is possible to determine the position of a point to a line and even the height of the point to a reference point with a single measurement.



Frequent Usage

The Builder R100M and R200M with built-in memory, saves and transfers measured data via an interface between the Builder and a PC.

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Accelerate Building Processes

Clear View
High resolution graphic display, instantaneous and clear under any lighting condition. Angles are displayed up to 1mgon or 1".

Easy Set Ups
The laser plummet and the exclusive graphic levelling aid make set ups extreme easy.

Leading Edge Measuring Technology
Continuous drive, absolute angle sensors and crystal clear telescope optics turn working with the Builder into immediate fun.

Electronic laser distance measurements
Thanks to the unique combination of a visible red laser and a flat prism, the Builder R measures distances of up to 830' (250 m) or 265' (80 m) reflectorless.

Free Set Ups Possible
The Builder R does not require line-of-sight or known point set-ups. Set-up points can be freely chosen to keep construction in sight.

Implementing the Construction Plan...
...could not be easier! Set up and level the instrument. Call up the "layout" function, enter the value and the instrument points towards the target!

Call Up Data
Enter the digital construction plan data in the office and then, once on the construction site, call up every point of the plan with its number.

PC-Interface
Data is transferred via cable to the PC and measured data is also transferred directly to other systems in the field.

Editing Data
In the office, data can be saved in tables or values can be processed as north/east or line and offset points.

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Total Station TPS400 - Maximum Flexibility

TC407 Total Station

7'' (2mgon) Total Station, 1 keyboard, user manual and container.
Angle Measurement: absolute,continous, 2 axis compensator,Distance Measurements: Infrared to prism 3500m, accuracy 2mm+2ppm, <1 sec, Laser plummet, 10,000 datablock memory, extra large, high resolution display, function Keys, serial interface
Several onboard applications for survey and construction.
More details on overview page.

Order No: 725 552

TCR407 Total Station Reflectorless

like TC407, but with additional Laserpointer and reflectorless distance meter, range 80m, accuracy 3mm+2ppm.

Order No: 725 556

TCR407power Total Station Reflectorless

like TCR407 featuring extended reflectorless range of 170m

Order No: 737 919

TC405 Total Station

5'' (1.5 mgon) Total Station, 1 keyboard, user manual and container. Further specifications as TC407

Order No: 725 553

TCR405 Total Station Reflectorless

5'' (1.5 mgon) Total Station, 1 keyboard, user manual and container. Further specifications as TCR407

Order No: 725 557

TCR405power Total Station Reflectorless

5'' (1.5 mgon) Total Station, 1 keyboard, user manual and container. Further specifications as TCR407power

Order No: 737 920

TC403 Total Station

3'' (1 mgon) Total Station, 1 keyboard, user manual and container. Further specifications as TC407

Order No: 725 554

TCR403 Total Station Reflectorless

3'' (1 mgon) Total Station, 1 keyboard, user manual and container. Further specifications as TCR407.

Order No: 725 558

TCR403power Total Station Reflectorless

3'' (1 mgon) Total Station, 1 keyboard, user manual and container. Further specifications as TCR407power.

Order No: 737 921

Rough and tough

The TPS400 series was specially designed for the construction site. It is splash and dust proof (IP54) and thus well protected against environmental influences.

Easy, quick, reliable!

Measuring with the new TPS400 series of total stations offers you full flexibility! With a laser plummet and electronic level the instrument is quickly set up and ready to measure. The proven endless fine drive and the accurate Leica telescope with 30-times magnification precisely targets each measuring point. The integrated electronic distance meter measures to target plates, prisms or even reflectorless to any given surface. These features save time and money.

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The perfect Solution for every Construction Site

- Fastest EDM measures typically within <1s
- Precise measurement mode with up to 2mm+2ppm accuracy
- Reflectorless models with 80m or optional 170m range available
- Up to 3500m measurement to single prism
- Choice of angular accuracy up to 3"
- Upload capacity for 10000 points
- Best-of-its-class display with graphical user guidance
- Optional second keyboard for measurement in two faces
- RS232 Interface
- Trigger key and endless drives to speed up the work.
- Onboard application optimized for construction survey - made for maximum flexibility
- Data exchange has been implemented in such a flexible way that just about any format can be created and transferred from the instrument to your computer

GST19-V2
Second Keyboard for dual face measurements for all TPS400 instruments
Order No: 733 370

EGL3
Electronic Guide Light for stake-out for all TPS400/800 instruments.
Order No: 667 161

Basic Set of Accessories TPS400/800
consisting of: 1 Tribrach (CTB101), 2 Batteries (GEB111), 1 Charger (GKL112), 1 Data transfer cable Lemo 0/RS232 (GEV102), 1 Miniprism Set (GMP111), 1 Instrument height meter (GHM007), 1 Distance holder (GHT196).

Feature	TC407	TCR407	TCR407 power	TC405	TCR405	TCR405 power	TC403	TCR403	TCR403 power
Accuracy	7''	7''	7''	5''	5''	5''	3''	3''	3''
Range	3500m	3500m	3500m	3500m	3500m	3500m	3500m	3500m	3500m
Int.Memory(Flash)	10.000 datablocks	10.000 datablocks	10.000 datablocks	10.000 datablocks	10.000 datablocks	10.000 datablocks	10.000 datablocks	10.000 datablocks	10.000 datablocks
Laser plummet	yes	yes	yes	yes	yes	yes	yes	yes	yes
Area of Use	Construc-tion Total Station for all round measure-ments	Construc-tion Total Station for all round measure-ments, reflector-less	Construc-tion Total Station for reflector-less long-range measure-ments	Construc-tion Total Station for all round measure-ments with better pre-cision	Construc-tion Total Station for all round measure-ments with better pre-cision, reflector-less	Construc-tion Total Station with better precision for reflect-orless long -range measure-ments	Construc-tion Total Station for all round measure-ments with highest precision	Construc-tion Total Station for all round measure-ments, reflector-less with highest precision	Construc-tion Total Station with highest precision for reflect-orless long -range measure-ments

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Total Station TPS800 - Maximum Efficiency

TC805 Total Station

5'' (1.5 mgon) Total Station, 1 keyboard, user manual and container.
Angle Measurement, absolute,continous, 2 axis compensator,Distance Measurements: Infrared to prism 3500m, accuracy 2mm+2ppm, <1 sec, Laser plummet, 10,000 datablock memory, extra large, high resolution display, Function Keys, Serial Interface, Several onboard applications for Land Survey and Engineering. More details on overview page.

Order No: 741 504

TC803 Total Station

3''(1mgon) Total Station , 1 keyboard, user manual and container, further specification as TC805.

Order No: 741 503

TC802 Total Station

2''(0.6mgon) Total Station , 1 keyboard, user manual and container, further specification as TC805.

Order No: 741 502

TCR805power Total Station Reflectorless

like TC805, but with additional Laserpointer and reflectorless distance meter, range 170m, accuracy 3mm+2ppm.

Order No: 741 507

TCR803power Total Station Reflectorless

3''(1mgon) Total Station, 1 keyboard, user manual and container. Further specification as TCR805power.

Order No: 741 506

TCR802power Total Station Reflectorless

2'' (0.6mgon) Total Station, 1 keyboard, user manual and container. Further specification as TCR805power.

Order No: 741 505

TPS800 at a Glance

Leica TC802, 803 and 805:

- Infrared distance measurements (IR)

Leica TCR802, 803 and 805:

- Infrared distance measurements (IR)
- Reflectorless distance measurements (RL)

Applications:

- Surveying & Orientation
- Free Station
- Stake Out
- Reference Line / Arc
- Tie distance
- Area calculations
- Remote height
- Hidden Point
- Height Transfer
- Construction
- 2D-Road (optional)
- COGO (optional)

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GFU15 Blue Tooth Kit
including Blue Tooth module, charger, protection cover and tripod hook.
Order No: 821 6666

EGL3
Electronic Guide Light for stake-out for all TPS400/800 instruments.
Order No: 667 161

An Application for every Task

The new onboard software highly improves the efficiency on the total station. An easy method to input road element data makes setting out of lines, curves or spiral along a road or rail project more simple. New features such as the full COGO software make surveying with TPS800 more powerful. More, reflectorless measurements allows you to reach even inaccessible measuring points. The system is easy to learn and simple to use. Start regular surveys immediately with a definable start-up sequence. Coding and settings can be selected with a one button push. And at least all your data can be transferred by any individual data format. All required programs are delivered with the instrument.

Basic Set of Accessories TPS400/800
consisting of: 1 Tribrach (CTB101), 2 Batteries (GEB111), 1 Charger (GKL112), 1 Data transfer cable Lemo 0/RS232 (GEV102), 1 Miniprism Set (GMP111), 1 Instrument height meter (GHM007), 1 Distance holder (GHT196).

Feature	TC805	TC803	TC802	TCR805 power	TCR803 power	TCR802 power
Accuracy	5''	3''	2''	5''	3''	2''
Range	3500m	3500m	3500m	3500m	3500m	3500m
Int.Memory(Flash)	10.000 datablocks	10.000 datablocks	10.000 datablocks	10.000 datablocks	10.000 datablocks	10.000 datablocks
Laser plummet	yes	yes	yes	yes	yes	yes
Area of Use	Total Station for land survey and civil engineering	Total Station for land survey and civil engineering with better precision	Total Station for land survey and civil engineering with highest precision	Total Station for land survey and civil engineering for reflectorless long-range measurements	Total Station for land survey and civil engineering with better precision for reflectorless long-range measurements	Total Station for land survey and civil engineering with highest precision for reflectorless long-range measurements

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Total Stations at a Glance

Type	Builder T100-T200	Builder R100(M)-R200(M)	TPS400 Series TC(R)407-TC(R)405-TC(R)403 (power) (power) (power)	TPS800 Series TC(R)805 TC(R)803 TC(R)802 (power) (power) (power)
Angular Measurements	yes	yes	yes	yes
Distance Measurements	-	Red Laser	Infrared Laser (IR)	Infrared Laser (IR)
Reflectorless Distance Meas.(RL)	-	yes	yes	yes
Accuracy	9" 6"	6"	7" 5" 3"	5" 3" 2"
Telescope Magn.	30x	30x	30x	30x
Range to Leica Prism	-	-	3500m	3500m
Range to Tape (60 mm x 60 mm)	-	250m	250m	250m
Accuracy / Time per Measurement				
Fine-Mode (IR)	-	-	2mm + 2ppm /< 1sec	2mm + 2ppm /< 1sec
Quick Mode (IR)	-	-	5mm + 2ppm /< 0,5sec	5mm + 2ppm /< 0,5sec
Tracking Mode (IR)	-	- 5mm + 2ppm /< 0,3sec	5mm + 2ppm /< 0,3sec	5mm + 2ppm /< 0,3sec
Range (RL)	-	80 m	170 m	170 m (TCR)
Normal Mode (RL)	-	No Text Yet	3mm + 2ppm /< 3sec	3mm + 2ppm /< 3sec
Tracking Mode (RL)	-	yes available	5mm + 2ppm /< 1sec	5mm + 2ppm /< 1sec
Internal Memoray (Flash)	-	10.000 Data Blocks (M modell only)	> 8.000 data blocks	10.000 data blocks
Data Exchange Module	-	-	IDEX / GS18 / GSI16 / flexible format	IDEX / GS18 / GSI16 / flexible format
Online Data Memory	-	No Text Yet	GSI-format via RS232	GSI-format via RS232
Interface	-	RS232 (M)	RS232	RS232
Display Type	Display 160 x 280 pixel or 8 lines x 31 characters	Display 160 x 280 pixel or 8 lines 31 characters	alphanumeric 8 lines x 24 characters	alphanumeric 8 lines x 24 characters
Slope Sensor 2 axis Compensator	yes	yes	yes	yes
Laser Plummet	Precision: 1.5 mm at 1.5 m	Precision: 1.5 mm at 1.5 m	yes	yes
Weight	4,3 kg	5 kg	5.0 kg incl. battery and tribrach	5.0 kg incl. battery and tribrach
Size	151mm x 203mm x 316mm	151mm x 203mm x 316mm	150mm x 207mm x 316mm	150mm x 207mm x 316mm
Operation Temperature	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Area of Use	Construction Theodolite at an economical price	Construction Theodolite at an economical price	Total Station for allround measure-ments	Total Station for land survey and civil engineering

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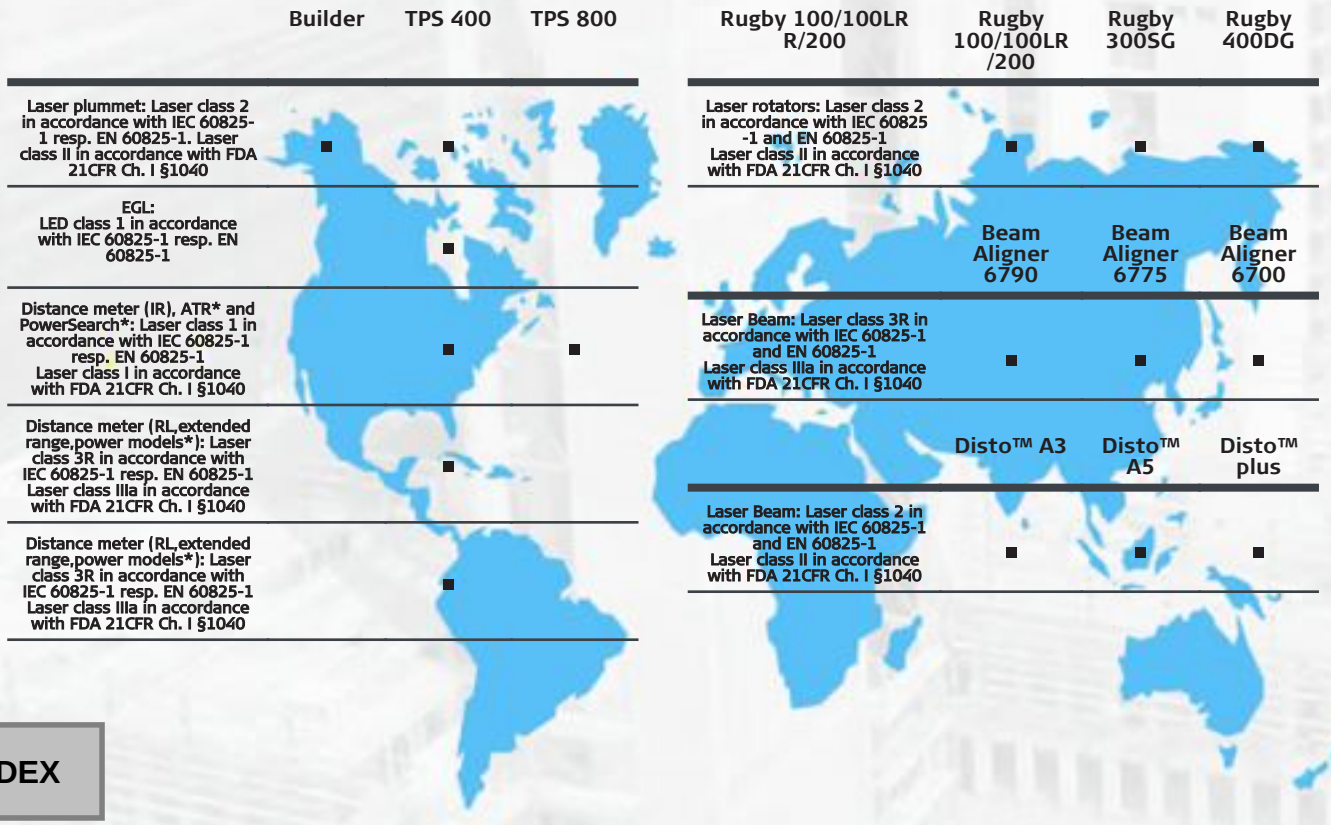
Laser groups and concept for Leica Geosystems surveying instruments


Builder
TPS 400
TPS 800
Rugby 100/100LR R/200
Rugby 100/100LR /200
Rugby 300SG
Rugby 400DG
Laser plummet: Laser class 2 in accordance with IEC 60825-1 resp. EN 60825-1. Laser class II in accordance with FDA 21CFR Ch. I §1040
EGL: LED class 1 in accordance with IEC 60825-1 resp. EN 60825-1
Distance meter (IR), ATR* and PowerSearch*: Laser class 1 in accordance with IEC 60825-1 resp. EN 60825-1 Laser class I in accordance with FDA 21CFR Ch. I §1040
Distance meter (RL,extended range,power models*): Laser class 3R in accordance with IEC 60825-1 resp. EN 60825-1 Laser class IIIa in accordance with FDA 21CFR Ch. I §1040
Distance meter (RL,extended range,power models*): Laser class 3R in accordance with IEC 60825-1 resp. EN 60825-1 Laser class IIIa in accordance with FDA 21CFR Ch. I §1040
Laser rotators: Laser class 2 in accordance with IEC 60825 -1 and EN 60825-1 Laser class II in accordance with FDA 21CFR Ch. I §1040
Beam Aligner 6790
Beam Aligner 6775
Beam Aligner 6700
Laser Beam: Laser class 3R in accordance with IEC 60825-1 and EN 60825-1 Laser class IIIa in accordance with FDA 21CFR Ch. I §1040
Disto™ A3
Disto™ A5
Disto™ plus
Laser Beam: Laser class 2 in accordance with IEC 60825-1 and EN 60825-1 Laser class II in accordance with FDA 21CFR Ch. I §1040

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